STCG Subcon Subgroup Meeting Minutes

September 14, 2000

Introductions/Announcements (Arlene Tortoso)

Arlene opened the meeting. Jim Hanson introduced Ken Kapsi, who is new to DOE-RL Science and Technology Programs. Ken will be the Subcon representative for Science and Technology Programs. Arlene announced that Rob Yasek (DOE-ORP) will be the Co-Chair of this Subgroup.

Review Minutes from Last Meeting (Facilitator)

The facilitator reviewed the minutes from the August 8, 2000 meeting. No changes were requested.

Update on ITRD Projects (Arlene Tortoso)

The Carbon Tet ITRD workshop has been postponed again. The holdup is deciding how to proceed with DNAPL characterization. The Subpanel of the Expert Panel is reviewing Duke's proposal/design. They will be done by October 23.

In the N-Area ITRD, they were discussing whether appetite 2 could be injected into the groundwater to stabilize the strontium-90. During a recent conference call, it was decided that it wouldn't work due to the presence of rocks and boulders. Mike Connoly's modeling work started in September. DOE and Ecology hope to make remediation plans after Mike's work is finished in December. The strontium-90 that is absorbed to the sediments along the shoreline will continue to reach the river. This will have to be evaluated when making decisions on source term remediation strategies. There was some discussion of a recent report by Bob Peterson and Ted Poston that addresses the impacts of Sr-90 on the ecosystems in the 100-N Area (*Strontium-90 at the Hanford Site and Its Ecological Implications*, PNNL-13127).

Rob Yasek provided an update on ORP's Vadose Zone Project, which used to be an ITRD project. They finished the slant borehole under SX-108 and obtained 16 samples that are now at PNNL. Preliminary results will be ready soon. They are done with SSX field characterization now. They did shallow characterization (30-50 feet) with the cone penetrometer at S Farm earlier. The spectral gamma results weren't consistent, which was disappointing. They decommissioned four boreholes as unfit for use at T Farm. They are trying to eliminate sources of water from leaking lines at U Farm and SX Farm. Lots of Hanford contractors are involved in the project. Two characterization boreholes are planned for next year in B-BX-BY Farm, and T/TX-TY the following year. Mactec will do logging around cribs, ponds, and trenches.

Small-Diameter Geophysical Logging System (SDGLS) (John April)

SDGLS is not a new concept. There was a demonstration project here six years ago. Then they identified the cone penetrometer and the idea of adding detectors. They needed a less costly way to deliver the detector to the subsurface. In fall 1999, they decided to use the geoprobe to deliver the detector. John noted that the detector technology is getting much better.

John was determined to find an opportunity for the SDGLS. He wrote a proposal with no specific site in mind. While he was out in the field "kicking the tires", he discovered a contaminated site in the 100-H Area that looked like a good opportunity to demonstrate the technology. A waste minimization proposal was funded in August 1999, and the field investigation was completed in November 1999. In situ characterization showed the ash pit to be 50% clean, resulting in a $7 million cost savings in avoided remediation. The next step is to close out sampling with the cone penetrometer deployment funded by EM-50.

Update on Laser Drilling (Scott Petersen)

ERC is using internal funds for the proof of concept of laser/cone penetrometer drilling, with ARA, PNNL, and U.C. Santa Barbara involvement. U.C. Santa Barbara has a Memorandum of Understanding with the U.S. Navy in Bremerton, Washington to use their laser. The work is planned to be done by the end of September and a report will be written by the end of October. SCFA is very interested and is trying to find a way to fund it next year. It may fit with an ASTD Call for Proposals or an Applied Science Call.

NETL/Vendors Site Visit (Scott Petersen)

In mid-September, NETL and three vendors (GE Research and Technology, ARA, and Directed Technologies) visited the Hanford Site. NETL provides EM-50 funds directly to industry for solving DOE Complex problems. The two topics of the current solicitation (to be issued on October 14) are:

?? Access in deep and difficult geologies
?? Identification of DNAPLs

Bidders will have 45 days for proposal submittal. NETL may fund up to three proposals, which will be evaluated in November.

NETL's plans for FY01 may cover in situ detection of radionuclides and non-radionuclides, which was originally proposed to them by John April and Dave Biancosino. They may also address access and groundwater remediation in the 100-N Area.

The address of the NETL website is http://www.fetc.doe.gov/. It contains vendor questions and answers and the solicitation.

Report on Gerald Boyd's Senior Management Council (Jerry White)

Jerry White attended Gerald Boyd's Senior Management Council meeting in July 2000. Paul Kruger represents TFA at Hanford. A Core Team of contractors supports them; Jerry is a member of this Core Team.

Hanford (Debbie Trader, Terry Walton, and Jerry White) proposed a better way to show the benefits of technology deployment (i.e., to replace the old cost savings method). They proposed using the Pollution Prevention Program's cost/benefit approach, with additional benefits being included (e.g., improved safety, enabling technology). This new method will help Gerald defend the benefits of S&T.

Gerald is expecting a $50 million "plus-up" next year. Each Focus Area and site is looking at options for how it should be used. The Office of Science and Technology (OST) has finally turned the corner and is getting more positive feedback from Congress.

Gerald came to Hanford last month for the PNNL On Site Review. He also met with ERC folks. He asked Hanford to identify its big problems where technology can play a role (e.g., hydrologic characterization of the vadose zone). Headquarters will partner with Hanford to solve a problem. One problem could encompass 4-5 S&T needs.

The Core Team was tasked to develop a set of initiatives to take OST to the next level of solving S&T problems. They will produce a set of white papers for the new administration to review/support as they see fit.

Jim Hanson mentioned that an EMAB Subcommittee was here last July. They were commissioned by Carolyn Huntoon to bolster support for science and explain how it is helping the sites. We can see the changes here at Hanford with S&T being integrated into the projects. For example, the use of EMSP funds to help projects is being encouraged. S&T Roadmaps are planned for the 324 Building and PFP.

Baseline Updating Guidance (Jim Hanson)

Hanford integrated technology planning efforts have resulted in the MYWP, S&T Needs, and TIPs processes all being integrated. All planning at Hanford is done in the same time frame now. Guidance was included in the BUG along with the S&T Needs endorsement schedule. The DOE projects were reviewing the contractor's S&T needs at the time of this meeting. They were to go to Arlene Tortoso on September 22, and be distributed to the Subgroup members on September 25. Endorsement is required by November 3. The needs must be in the IPABS database by the end of October, as well as responses from the Focus Areas. SCFA representatives will be visiting Hanford the week of October 9. By January 12, all needs and TIPs must be in IPABS.
The needs will be sent out electronically to Subgroup members. Comments should be sent electronically to Scott Petersen by COB October 16.

TIPs for High-Priority Needs (Scott Petersen)

Scott said that more detail has been added to the TIPs for FY01. In addition, there are six new TIPs for the Groundwater/Vadose Zone Integration Project. The new TIPs are included in the FY01 S&T Needs Statements.

FY01 Revisions to Existing S&T Needs (Mike Truex)

Mike distributed a handout with the S&T needs identification numbers, titles, and changes since last year. The priorities stayed pretty much the same for IPABS. The Groundwater/Vadose Zone needs priorities were highlighted in the text. Mike summarized all the changes made this year. All the groundwater plumes were updated to include ITRD activities or ISRM deployment, plus long-term stewardship issues. As the 200 Area has done more planning, more detail was added to the needs, mainly in the problem descriptions. Mike noted that the needs format was changed to match IPABS (e.g., PBS milestones, life-cycle cost savings). We can still add new needs later in the year.

Dib Goswami stated that the S&T needs summary should document ongoing activities that are currently being funded by the Groundwater/Vadose Zone Integration Project and EMSP.

Jim Hanson discussed the four EM Corporate Performance Measures. Only one has been implemented so far; HQ is planning to phase the other three in during FY02. HQ wants to look at the high-priority needs from each site and determine how many of them could be proposed for HQ disposition in a year. Such an assessment would need to look at life-cycle cost savings and risk.

Status Report on Selected S&T Needs (Scott Petersen)

Scott reviewed the status of the following two needs:

?? RL-SS15 Improved, In Situ Characterization to Determine the Extent of Soil Contamination of One or More of the Following Heavy Metals: Hexavalent Chromium, Mercury, and Lead
?? RL-SS16 Improved, In Situ Characterization to Determine the Extent of Soil Contamination of One or More of the Following Radionuclides: Uranium, Plutonium, Cesium, Cobalt, or Strontium-90

These metals and radionuclides are the regulatory risk drivers for remediation. NETL could possible fund RL-SS15. The SDGLS could be a good tool for RL-SS16. Steady progress is being made with the geoprobe and detection tools for the cone penetrometer.

Action Items

?? Get copy of *Strontium-90 at the Hanford Site and Its Ecological Implications* (PNNL-13127) for Judit German-Heins (Arlene Tortoso).
?? Get the NETL website address for these meeting minutes (Facilitator). Done.

Attendees

John April (BHI)
Kevin Bergstrom (CHI)
Bill Bonner (PNNL)
Craig Cameron (EPA)
Abdul Dada (BHI)
Linda Fassbender (PNNL)
Mark Freshley (PNNL)
Judit German-Heins (Nez Perce Tribe)
Dib Goswami (Ecology)
Jim Hanson (DOE-RL)
Ron Jackson (BHI)
Ken Kapsi (DOE-RL)
Pete Molton (PNNL)
Scott Petersen (BHI/TA)
Gordon Rogers (HAB)
Dan Tano (DOE-RL)
Arlene Tortoso (DOE-RL)
Mike Truex (PNNL)
Jerry White (BHI)
Rob Yasek (DOE-ORP)

Next Meeting

The next Subcon Subgroup meeting is scheduled for November 15 in Room 1B-45 of the Bechtel Building. Planned agenda items include:

?? Information from the Slant Borehole Results (Rob Yasek).
?? Neutron Probe Detector in the 200 Area (Bruce Ford)
?? Official Endorsement of FY01 S&T Needs (Mike Truex or Scott Petersen)
?? ITRD Status Report (Arlene Tortoso)
?? PITT Path Forward (Arlene Tortoso)
?? Technology Funding for Hanford (Ken Kapsi)
?? FY01 Technology Deployments (Scott Petersen)
?? Site Technology Plan (Gary McNair)
?? Update on SCFA Visit (Scott Petersen)